

2009 Consumer Confidence Report

Water System Name: SA-16, Sumner Hill

Report Date: 6/18/10

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2009.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Surface water from the San Joaquin River

Name & location of source(s): Your water is received through an underwater intake structure, treated and stored at a tank within the Sumner Hill Service Area.

Drinking Water Source Assessment information: A source assessment was conducted for Sumner Hill in April 2003. While no contaminants exceeding current MCLs were found, the assessment identified recreational activities and low-density septic systems as having the potential for outside contamination. A copy of the complete assessment may be viewed by visiting the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm or the Madera County Environmental Health Department, or by requesting a summary of the assessment from Environmental Health at (559) 675-7823.

Time and place of regularly scheduled board meetings for public participation: Meetings are held at 9:00 a.m. each Tuesday, except the fifth Tuesday of any month, at the Board of Supervisors' Chambers; 200 W 4th Street, Madera. Visit the County website, www.madera-county.com/supervisors/agenda.html for a copy of the agenda.

For more information, contact: Julio Padilla

Phone: (559) 675-7820

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) – 2008	5	3.9	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) – 2008	5	0.4	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	11/08	8.6	8.6	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	11/08	<20	<20	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*Any violation of an MC or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (ppb)	8/08	91.6	91.6	80	N/A	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	8 & 12/08	120*	110 – 120	60	N/A	By-product of drinking water disinfection
Total Organic Carbon (ppm)	Monthly 2009	1.8	1.5– 2.4	TT	N/A	Various natural and manmade sources

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	11/08	9.1	9.1	500	N/A	Runoff/leaching from natural deposits; seawater influence
Odor (Units)	11/08	1	1	3	N/A	Naturally-occurring organic materials
Specific Conductance (micromhos)	11/08	52.5	52.5	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	11/08	1.5	1.5	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	11/08	52	52	1000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	11/08	0.1	0.1	5	N/A	Runoff/leaching from natural deposits

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

We are required to *monitor* your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. As shown in table 4, there is one primary drinking water violation for exceeding the MCL.. Additionally there was a failure to monitor the standby well. The violations are listed below.

***Total Haloacetic Acids** – Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Haloacetic Acids are a byproduct of chlorination and interaction with organic compounds. We are currently looking into other disinfection processes that do not contribute to the formation of these compounds.

Monitoring Violation – This year we became aware of monitoring violations for the standby source, the Radial Well. Even though the well had not been used it is required to be monitored for General Mineral, Physical, and Inorganics¹, Synthetic Organic Chemicals (SOC)², and Volatile Organic Chemicals (VOC)³. These components are required to be monitored every 3 years. The required samples have since been taken and meet drinking water standards.

¹ Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Fluoride, Mercury, Nickel, Perchlorate, Selenium, Thallium, Lead, Silver, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, Zinc, color, SEC, Turbidity, Total Hardness, Alkalinity, Chloride, Fluoride, Nitrate, Nitrite, Sulfate, pH, Bicarbonate, Carbonate, Corrosively, MBAS, Odor, TDS, Hydroxide

² Simazine, atrazine, alachlor, DBCP, and Ethylenedibromide.

³ Benzene; Carbon Tetrachloride; 1,2-Dichlorobenzene; 1,4-Dichlorobenzene; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethylene; cis-1,2-Dichloroethylene; trans-1,2-Dichloroethylene; Dichloromethane; 1,2-Dichloropropane; 1,3-Dichloropropane; Ethylbenzene; Methyl-*tert*-butyl ether; Monochlorobenzene; Styrene; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Toluene; 1,2,4-Trichlorobenzene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; Trichlorofluoromethane; 1,1,2-Trichloro-1,2,2-Trifluoroethane; Vinyl Chloride; and Xylenes.

For Systems Providing Surface Water as a Source Of Drinking Water:

TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approved filtration technology used)	Package Conventional Surface Treatment Plant – Rescue Engineers
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>0.3</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>1.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.280
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided earlier in this report.

Summary Information for Surface Water Treatment

The Sumner Hill water system surface water treatment plants were able to meet all performance standards. The **Total Haloacetic Acids** MCL exceedence is associated with the use of chlorine as a disinfectant. We are looking into other methods of disinfection to eliminate this problem. We will be moving forward to correct this violation and the process of getting community input and support for the much needed improvements for your water system.

Though we've learned through our monitoring and testing that some other contaminants have been detected, the EPA has determined that your water IS SAFE at these levels.

We hope you find this report informative and helpful. Please call our office if you have questions. The County of Madera works continuously to provide the best available water to every tap. We ask that you, our customers, help us protect our water sources. Water is the heart of our community, our way of life, and our future.